

**REMARKS**

This in response to the Final Rejection in the Office Action mailed April 14, 2006.

Claims 1 through 4 are currently pending in the application.

Claims 1 through 3 stand rejected.

Claim 4 is withdrawn from consideration.

Applicants propose to amend claims 1 and 2 and respectfully request reconsideration of the application as proposed to be amended herein.

**35 U.S.C. § 112 Claim Rejections**

Claims 1 through 3 stand rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Applicants respectfully traverse this rejection, as hereinafter set forth.

Applicants have amended independent claims 1 and 3 to describe their invention as described in the specification in such a way as to reasonable convey to one skilled in the art that the inventors had in their possession the invention at the time the application was filed. Applicants assert that independent claims 1 and 3 include the subject matter of numbered paragraphs [0064] through [0071]. Applicants assert that the presently amended independent claims 1 and 3 clearly comply with the provisions of 35 U.S.C. § 112, first paragraph.

Claims 1 through 3 stand rejected under 35 U.S.C. § 112, second paragraph, as failing to particularly point out and distinctly claim the subject matter which Applicants regard as their inventions. Applicants respectfully traverse this rejection, as hereinafter set forth. Applicants assert that claims 1 and 2 to clearly point out and distinctly claim the subject matter which Applicants regard as their invention. Applicants assert that claims 1 through 3 are clearly allowable over 35 U.S.C. § 112, second paragraph.

### 35 U.S.C. § 103(a) Obviousness Rejections

#### Obviousness Rejection Based on U.S. Patent 5,604,377 to Palagonia in view of U.S. Patent 5,343,075 to Nishino

Claims 1 through 3 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Palagonia (U.S. Patent 5,604,377) in view of Nishino (U.S. Patent 5,343,075). Applicants respectfully traverse this rejection, as hereinafter set forth.

M.P.E.P. 706.02(j) sets forth the standard for a Section 103(a) rejection:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine reference teachings. Second, there must be a reasonable expectation of success. Finally, **the prior art reference (or references when combined) must teach or suggest all the claim limitations.** The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). (Emphasis added).

Turning to the cited prior art, the Palagonia reference teaches or suggests a packaging scheme for a stack of semiconductor chips. The stack of semiconductor chips is connected to a wiring interface. Separating each of the chips from any adjacent chip is a supporting, insulating interposer. The interposers are cantilevered shelves of a rack. Lead frame fingers contacting solder balls on the semiconductor chips connect the chips to a printed circuit board.

The Nishino reference teaches or suggests a composite stacked semiconductor device having semiconductor devices having external leads projecting from opposite sides thereof in contact with contact plates.

After carefully considering the cited prior art, the rejections, and the Examiner's comments, Applicants assert that the claimed inventions clearly distinguish over the cited prior art.

Applicants assert that any combination of the Palagonia reference and the Nishino reference fails to teach or suggest the claim limitations of the claimed inventions of presently amended independent claims 1 and 3 calling for "providing a plurality of primary integrated circuit packages, each primary integrated circuit package having a plurality of peripheral sides, a

top, and a bottom and having a plurality of leads extending from one peripheral side thereof”, “providing the cage including an open top, an open bottom, at least three attached adjacent peripheral sides and portions of a fourth peripheral side attached to each of two of the at least three attached adjacent peripheral sides, one side of the attached adjacent peripheral sides having a plurality of conductive buses thereon, the cage enclosing at least three adjacent peripheral sides of the plurality of sides of each primary integrated circuit package of the stacked plurality of primary integrated circuit packages”, and “attaching the cage to the substrate, the cage connecting at least one lead extending from a peripheral side of at least one integrated circuit package of the plurality of outer leads of the stacked plurality of primary integrated circuit packages to at least one conductive bus of a plurality of spaced transverse conductive buses”. Applicants assert that any combination of the Palagonia reference and the Nishino reference teaches or suggests the use of a closed cage not having a conductor on the side thereof but an independent conductor contacting the leads of the printed circuit board to which the leads are fixed. Such is not the claimed inventions of presently amended independent claims 1 and 3. Accordingly, any combination of the Palagonia reference and the Nishino reference fails to establish a *prima facie* case of obviousness under 35 U.S.C. § 103 regarding the claimed inventions of presently amended independent claims 1 and 3. Accordingly, presently amended independent claims 1 and 3 are allowable as well as dependent claim 2.

Additionally, Applicants assert that the sole suggestion for any combination of the Palagonia reference and the Nishino reference is solely Applicants’ disclosure, not the cited prior art, as the cited prior art contains no suggestion whatsoever for any combination thereof. Such is evidenced by the fact that any modification of the Palagonia reference based upon the Nishino reference clearly destroys the invention of the Palagonia reference because the leads and printed circuit board of the Palagonia reference must be eliminated when the packaged semiconductor die of the Nishino reference is substituted for the unpackaged semiconductor chip of Palagonia. Therefore, any combination of the Palagonia reference and the Nishino reference fails to establish a *prima facie* case of obviousness under 35 U.S.C. § 103 regarding the claimed inventions of presently amended independent claims 1 and 3. Accordingly, presently amended independent claims 1 and 3 are allowable as well as dependent claim 2.

### ENTRY OF AMENDMENTS

The proposed amendments to the claims should be entered by the Examiner because the amendments are supported by the as-filed specification and drawings and do not add any new matter to the application to clearly comply with the provisions of 35 U.S.C. § 132. Applicants request entry of this amendment because the amendment is timely filed, the amendment places the application in condition for allowance, and the amendment does not require any further search or consideration as the subject matter is clearly present in the specification. Finally, if the Examiner determines that the amendments do not place the application in condition for allowance, entry is respectfully requested upon filing of a Notice of Appeal herein.

### CONCLUSION

Claims 1 through 3 are believed to be in condition for allowance, and an early notice thereof is respectfully solicited. Should the Examiner determine that additional issues remain which might be resolved by a telephone conference, he is respectfully invited to contact Applicants' undersigned attorney.

Respectfully submitted,

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